

Supplementary Materials

Article

Assessment of Water Quality Evolution in the Pearl River Estuary (South Guangzhou) from 2008 to 2017

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Table S1. The storage condition, container and time for water samples.

Parameters	Preservatives	Storage condition	Storage time	Sampling Container
pH			12 h	Polyethylene bottles
DO	MnSO ₄ , alkaline KI + NaN ₃ solutions		24 h	Dissolved oxygen bottles
BOD ₅	H ₂ SO ₄ , pH ≤ 2	4 °C, dark	12 h	Dissolved oxygen bottles
COD _{Cr}	H ₂ SO ₄ , pH ≤ 2		2 d	Pyrex bulb
COD _{Mn}			2 d	Pyrex bulb
TN	H ₂ SO ₄ , pH ≤ 2		7 d	Pyrex bulb
NH ₃ -N			24 h	Pyrex bulb
TP	HCl, H ₂ SO ₄ , pH ≤ 2		24 h	Pyrex bulb
F. Coli	Adding Na ₂ S ₂ O ₃ to 0.2-0.5 g L ⁻¹ to remove residues	4 °C, dark	12 h	Pyrex bulb
Petroleum	HCl, pH ≤ 2		7 d	Pyrex bulb

Table S2. Correlation coefficient matrix for different water quality parameters in Nansha, Guangzhou (2008–2017).

	F. Coli	T	pH	DO	BOD ₅	COD _{Cr}	COD _{Mn}	Petroleum	TN	NH ₃ -N	TP
F. Coli	1										
T	0.160	1									
pH	0.017	0.153	1								
DO	0.051	-0.164	0.118	1							
BOD ₅	0.068	-0.093	-0.048	-0.067	1						
COD _{Cr}	0.080	-0.110	0.131	0.032	0.470*	1					
COD _{Mn}	-0.005	-0.168	0.076	-0.096	0.544*	0.518*	1				
Petroleum	0.110	-0.009	0.308*	-0.014	0.274*	0.337*	0.336*	1			
TN	-0.002	-0.309*	-0.088	-0.034	0.347*	0.358*	0.247*	0.076	1		
NH ₃ -N	-0.165	-0.594*	-0.064	0.040	0.254*	0.257*	0.297*	0.161	0.358*	1	
TP	0.099	-0.0029	0.206*	-0.038	0.102	0.137	0.198	0.198	0.134	0.102	1

* *Correlation is significant at 0.01 level.

Correlation coefficients > 0.5 are boldfaced and italic.

Correlation coefficients 0.3 – 0.5 are boldfaced.